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USAWC STRATEGY RESEARCH PROJECT

**A STRATEGY TO REDRESS SPECIAL OPERATIONS AVIATION ROTARY-WING
SHORTFALLS**

by

Colonel Stephen M. Schiller
United States Army

Professor John DeFreytas
Project Adviser

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ABSTRACT

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Since 2001, Special Operations Command (SOCOM) has experienced a serious deficit in its Special Operations Aviation (SOA) rotary-wing capability. This deficit stems from inexpedient locations of special operations aviation battalions as well as limited rotary-wing asset inventories. Moreover, the recent Quadrennial Defense Review recommendation to the Secretary of Defense calls for a growth of approximately thirty percent in Special Operations Forces. This growth, coupled with the recent addition of Marine Special Operations Forces to SOCOM, will further exacerbate the existing shortage of SOA rotary-wing lift. Strategically, SOCOM must address this shortfall at its roots to ensure adequate future global operational capability, despite the significant costs associated with creating and maintaining a more robust, specialized rotary-wing capability. This study was designed as a root cause analysis of the current and projected shortfall in Special Operations Aviation capability. With the root causes uncovered, it then examines courses of action that address the problem, and identifies major second and third order effects. The research reveals shortfalls in structure, organization, and inventory that affect current and future capability. It highlights the inherent difficulties in growing more capability. The conclusion provides recommendations to resolve the shortfall while creating and preserving maximum capabilities.

A STRATEGY TO REDRESS SPECIAL OPERATIONS AVIATION ROTARY-WING SHORTFALLS

After the fall of the Taliban in 2001, the United States Special Operations Command (USSOCOM) sought to resolve the shortfall in Special Operations Aviation (SOA) that was repeated throughout OPERATION ENDURING FREEDOM (OEF). Special Operations forces were not only constrained by a limited number of SOA airframes available to conduct operations, but also by the high-altitude environment that severely limited the capability of those aircraft that were available. In a report submitted in 2002 by the Center for Strategic Leadership (CSL), key findings revealed that Army Special Operations Forces (ARSOF) contributed significantly to the success of OEF, but that technological challenges limited their operational capabilities. Notable in the report is that Army tactical "lift platforms strained to meet the demands imposed by the threat, the environment, and the magnitude of this global effort."¹ Demand for rotary-wing assets has steadily increased since the beginning of the Global War on Terror, and most critically since the start of OPERATION IRAQI FREEDOM (OIF). Moreover, in response to OIF, the recent Quadrennial Defense Review (QDR) recommendation to the Secretary of Defense calls for a growth of approximately thirty percent in Special Operations Forces (SOF). This growth, coupled with the recent addition of Marines to SOCOM, will further exacerbate the shortfall in SOA rotary-wing lift.² In light of these deficiencies in its rotary-wing capability, the special operations community was compelled to examine courses of action to augment and improve its capabilities for future operations. Unfortunately, current proposals to mitigate this issue remain limited, and all fall short of solving the rotary-wing deficit. Strategically, SOCOM must redress this shortfall to ensure a suitable future operational capability.

"Special Operations (SO) encompass the use of small units in direct or indirect military actions focused on strategic or operational objectives. . .require units with combinations of trained specialized personnel, equipment, and tactics that exceed the routine capabilities of conventional military forces...(conducting) operations (that) are politically sensitive missions where only the best equipped and most proficient forces must be deployed to avoid detection and possible mission failure that can result in damage to US prestige and interests."³ The Special Operations Aviation shortfall in SOCOM--and its resultant limitation on SOCOM's operational capability--is significant to SOCOM and ultimately the United States strategic capability. Special Operations Command's capacity to conduct worldwide missions in support of the National Strategic Objectives is paramount to the national security of the United States. The framework for Special Operations Command's long range planning is the Capstone

Concept for Special Operations (CCSO). The CCSO presents a reasonable starting point for the command's goals for transformation. Nested with three national strategic objectives, the CCSO includes: lead planner for the Global War on Terror (GWOT), Global Presence, and Global Expeditionary Force. This implies a net is cast for more and more terrorists, potential terrorists as well as those who harbor them.⁴ Currently, SOCOM is approaching maximum operational capacity and, as the GWOT endures, SOCOM's requirements will undeniably swell beyond current levels. Assuming the current commitments in OEF and OIF will endure for the foreseeable future, it is easy to envision SOCOM also shouldering commitments well beyond the current effort. This increase will include missions beyond Afghanistan and Iraq, and will likely include the Horn of Africa, Northern Africa, Europe, and Indonesia. Many of these potential locations create operational and tactical challenges requiring long-range infiltration and exfiltration, direct action, combat search and rescue, as well as resupply and battlefield movement requirements. While not all these missions will require rotary-wing support, the potential exists for numerous mission requirements in support of the aforementioned.

Special Operations Command includes two units whose mission is to provide tactical rotary-wing support to the nation's special operations forces. One is the 160th Special Operations Aviation Regiment (Airborne) (SOAR), whose headquarters is located at Fort Campbell, Kentucky. The 160th SOAR consists of four operational battalions and approximately 140 aircraft. The other SOCOM tactical rotary-wing unit is the Sixteenth Special Operations Wing (SOW) headquartered at Hurlburt Field, Florida. The Sixteenth SOW includes multiple special operations aviation capabilities; however, its rotary-wing component includes two operational MH-53 heavy-lift squadrons and one training squadron. The 160th SOAR and the rotary-wing components of the Sixteenth SOW provide specialized rotary-wing low-level, night-vision and precision navigation; operational long-range infiltration, exfiltration, and resupply; as well as tactical vertical envelopment with very precise ground special operations forces. This capability, though categorized in the operational and tactical realm for SOCOM, has a distinct and vital impact on the strategic posture of this nation. Formed in response to the failure of the 1979 Iranian Hostage Rescue, this precise rotary-wing capability--which is specifically well equipped and trained--is a strategic imperative.⁵

Currently, the Sixteenth SOW's deployable helicopter capacity resides in 23 MH53J/M Pave Low helicopters, a force size comparable to a 160th SOAR helicopter battalion. The Twentieth Special Operations Squadron (SOS), which resides at Hurlburt Field alongside its parent headquarters, consists of 17 helicopters. Doctrinally, this squadron deploys by section; three sections of six aircraft each. The Twenty-first SOS, which resides in England, consists of

six heavy-lift MH-53 helicopters and resides in England. The training base for these two battalions is the 551st Training Squadron, located in Albuquerque, New Mexico whose helicopter capacity is also six MH-53s. Therefore, the SOW's operational capacity is four units (sections) that typically deploy to augment the Joint Special Operations Air Component (JSOAC) within a Joint Special Operations Task Force (JSOTF). The Sixteenth SOW possesses no complimentary rotary-wing fire support or air assault escort helicopters.⁶

The 160th Special Operations Aviation Regiment's tactical aircraft consist of the MH-6 and AH-6 "Little Bird" assault and attack helicopters, the MH-60 assault and MH-60 "DAP" attack helicopters, and the MH-47 heavy-assault helicopter. The unit's mission is to provide aviation support to special operations forces as noted above but also includes rotary-wing fire support, armed escort and reconnaissance, as well as command, control, and communications to special operations aviation forces. The unit typically task organizes to meet the demands of the JSOTF and normally is comprised of both medium-lift (MH-60) and heavy-lift (MH-47) helicopters. Only the unit's First Battalion organically sustains an attack helicopter capability, AH-6 and armed MH-60, that provide rotary-wing fire support to the ground force commander. Also, both armed helicopters offer armed air assault escort to the air assault task force commander. It is important to note that similar to the Twentieth and Twenty-first SOS, the 160th SOAR's other three operational battalions do not include attack helicopters and typically do not require armed escort or reconnaissance.⁷

The Center for Strategic Leadership report in 2002 highlighted the important role of Special Operations Forces while pointing out how severely limited the current rotary-wing force was in providing resource capability in such a demanding environment. The report's findings ostensibly offer three solutions to solve the limited operational capability. First, the report recommends a reconsideration of program funding levels for the MH-47 along with other key platforms. Second, the report identifies a shortfall in force structure to meet the current demand of increased employment. Finally, the report recommends improving SOF-conventional force integration and more joint training.

Another extremely important report for consideration is the 2006 Quadrennial Defense Review (QDR). The recent QDR vision states "the future special operations force will be rapidly deployable, agile, flexible and tailorable to perform the most demanding and sensitive missions worldwide."⁸ The QDR decisions with respect to the future of SOF are:

- Further increase SOF capability and capacity to conduct low-visibility persistent presence missions and a global unconventional warfare campaign.
- Increase active duty Special Forces battalions by one-third.

- Expand Psychological Operations and Civil Affairs units by 3,700 personnel (33% increase) to provide increased support for SOF and the Army's modular forces.
- Establish a Marine Corps Special Operations Command (MARSOC) composed of 2,600 Marines and Navy personnel to train foreign military units and conduct direct action and special reconnaissance.
- Increase SEAL Team force levels to conduct direct action missions.
- Establish a SOF unmanned aerial vehicle squadron to provide organic capabilities to locate and target enemy capabilities in denied or contested areas.
- Enhance capabilities to support SOF insertion and extraction into denied areas from strategic distances.⁹

This desire for proliferation in capability generally would require a minimum of a thirty percent increase in forces as well as an expanded mission capability worldwide. Critical to note are two disparities in this report. First, the addition of a MARSOC and its capability does not include mention of any accompanying fixed-wing or rotary-wing component. Second, the report does not specifically include any increase in air platforms, whether fixed-wing or rotary-wing, to conduct potential missions in support of this thirty percent increase. Third, the final recommendation calling for an enhanced capability for "SOF insertion and extraction into denied areas from strategic distances" namely points to justify the CV-22. While it is not necessary to assume that an increase in forces requires a proportional increase in rotary-wing capability, one must nevertheless assume that with an increase in actionable ground force capability, such ground forces will require at least some level of tactical rotary-wing support. This glaring shortfall will undermine and likely preclude any desired increase in future capability for SOCOM and therefore SOCOM must address this capabilities gap now.

Air Force Special Operations Command (AFSOC) Transformation

One part of the equation to increase SOA capacity lies with the Air Force. Air Force Special Operations Command is moving towards improving its capabilities for the future. Plans include addition of the CV-22 Osprey--and eventual decommissioning the MH-53 Pave Low--among other fixed-wing improvements, as well as the addition of unmanned aerial vehicle platforms. AFSOC plans to field 50 operationally capable CV-22s as part of the answer to increase SOCOM's overall increase in potential. The CV-22 replacement will definitely increase SOCOM's capability, however it is difficult to predict to what degree. Though untested in practice, it is believed the Osprey will create a significant strategic and operational reach capability, although it offers extremely limited tactical capability. Proven to be two to three times

faster and with a significant increase in operational reach, the Osprey stands to perform remarkably well in long-range infiltration, exfiltration, and resupply missions. However, it is unlikely that the CV-22 will provide a significant tactical capability. It is difficult to envision this platform conducting moderate to high threat vertical envelopment to complex and demanding targets with fully equipped troops. Because of the Osprey's significant rotorwash, limited maneuverability, and limited payload, it will undoubtedly fall short as the platform of choice for tactical vertical envelopment. As a result, this platform provides only part of the answer in the equation to solve the problem of the shortfall in rotary-wing capability. While not a complete solution, however, it will ultimately bridge the operational gap for SOCOM, specifically by reducing the load on the MH-47 fleet for long-range infiltration, exfiltration, and resupply, thus making more MH-47s available for tactical, heavy lift requirements.

Clearly, more is needed. Since the preponderance of rotary-wing assets--over 80 percent of SOCOM's total rotary-wing capacity--resides in the 160th SOAR, it seems clear that only Army Special Operations Aviation can provide the most effective solution to resolve this shortfall.¹⁰

Army Special Operations Aviation (ARSOA) Transformation

In 2003, in an attempt to increase their operational capability, and after much deliberation, the 160th began implementation of its Forward Presence--Expeditionary (FP-X) transformation. This transformation focused primarily on consolidating and reorganizing the unit as well as incorporating an increase in force size. The objective of this expeditionary concept was to allow the 160th to provide more rotary-wing heavy lift capability to more combatant commanders worldwide. This concept strives to meet the national as well as theater mission requirements. To do this however, the unit needed to consolidate its resources, as several subordinate units were either stationed overseas or were planned to be stationed overseas residing in a combatant commander's area of responsibility.¹¹ This forward-presence thereby limited SOCOM's ability to shift globally to other priority efforts. In addition, the 160th needed to add more helicopters; subsequently, a significant change in structure and increase in personnel were required.¹²

In the meantime, however, the demand for SOA had increased exponentially since the commencement of OIF. This OIF demand was on top of the ongoing operations in Afghanistan, and the 160th was still sustaining their continental US (CONUS) no-notice, alert requirements in support of other world wide contingencies. Measured objectively, sustained operational mission requirements began exceeding the "maximum sustainable rate" by as much as 20 percent. This sustainable rate was determined by a very complex equation including, but not limited to, flight

hour demand, maintenance personnel available to repair helicopters, and the spare parts available. To date, this relationship between a high operational tempo (OPTEMPO) and maximum sustainable rate has been sustained for almost four years.¹³

With respect to helicopters, the 160th Special Operations Aviation Regiment's original FP-X document increased the overall helicopter availability by 24 MH-47s, allowing for two additional heavy-lift companies. This increase was approved and the unit is well on its way to incorporating the additional aircraft into the newly approved structure. It is important to note that not all the additional helicopters filled operational shortfalls, as some must be been allocated to training requirements. However, the document also called for an additional eight MH-47s and ten MH-60 Blackhawks that have yet to be approved.¹⁴ These aircraft will comprise an additional heavy-lift company and medium-lift company which will provide the suitable "round out" of forces for the 160th and ultimately SOCOM. The increase in force size, based on the additional operational aircraft, is the precise increase required to address the shortfalls addressed by both the Center for Strategic Leadership report and the QDR. However, SOCOM has been unable to gain approval to meet the original FP-X document.

Comparative Analysis—Army Transformation

Following the fall of Saddam Hussein's regime in April 2003, the Army instituted a transformation in several areas; the one most germane to this discussion is organization. Prior to 2003, the Army's divisional organization included a traditional divisional building block, which included brigades and Brigade Combat Teams (BCT), organized for combat against a similar enemy force. This construct was a large, fixed organization that required division command and control, or at least division augmentation and tailoring to create an appropriate force package. This construct had a limited joint capability. After the reorganization, the Army BCT became the building block and provided the Regional Combatant Commander with a more robust, self-contained and sustainable organization. This new BCT is built to be more versatile as well as joint, interdependent, and organized with capabilities across the spectrum of missions on today's battlefield. Across the Army, with the BCT as the base building block for formulating capabilities, there are 43 active Brigade Combat Teams. Each operational Army Division includes four BCTs with three independent BCTs including the Second Armored Cavalry Regiment (ACR), the Eleventh ACR, and the 173rd Airborne Brigade.¹⁵

Vital to the support of the BCT is the new Army Aviation Brigade. This entity transformed as well, resulting in a truly multifunctional aviation brigade where each consists of two heavy or light attack helicopter battalions, an assault battalion, a general support aviation battalion, an

aviation support battalion, and a signal company. Though organized into heavy, medium, and light concepts, in general, this new multifunctional aviation brigade provides approximately 115 helicopters to the BCT. These helicopters conduct attack, reconnaissance, assault, infiltration, exfiltration, and resupply missions for the BCT. To form this new aviation brigade, the Army reorganized the traditional construct by eliminating the corps aviation brigades and building the “like” multifunctional aviation brigades under each operational division. With ten Army Divisions, there are 11 aviation brigades with the additional aviation brigade providing to support the 101st Airborne Division (Air Assault).¹⁶ Therefore with 43 active Army Brigade Combat Teams and 11 aviation brigades, there is a BCT to aviation brigade ratio of approximately 4-1. Additionally, each aviation brigade is co-located with their parent division headquarters and therefore, in most cases, co-located with the BCTs they support. This co-location is essential to their ability to train with the units they support in order to develop the sustained habitual relationships so vital to mission success.

The 160th SOAR is the sole Army aviation unit responsible for providing helicopter support to SOCOM. This support is required to be capable of conducting real-world contingencies, joint operational training, internal qualification and sustainment training, while maintaining a standing alert force. Their support relationships include Army, Navy, and now USMC special operations units. These special operations units comprise eight active groups or regiments, which are brigade-sized equivalents, as well as two reserve and National Guard Special Forces Groups and the MARSOC.¹⁷ Therefore, the special operations aviation is called to support in the order of 11 brigade-sized unit equivalents. While this support is in conjunction with the AFSOC’s Twentieth and Twenty-first Special Operations Squadrons, the ratio comparison between an Army aviation brigade to a divisional BCT and special operations aviation to brigade-sized equivalent is significantly less.

Another point of evaluation is to assess the number of helicopters available to BCTs as compared to the number of SOA platforms available to SOF. While an aviation brigade has approximately 115 helicopters, special operations aviation has approximately 150 helicopters. For SOA, this implies a 25 percent higher availability of helicopters and implies a greater availability in operational heavy-lift capability upon fielding of the CV-22. This significantly reduces the potential shortfall; however, as noted previously, the CV-22 will prove minimally applicable to a tactical capability. Thus, the fact remains that though 25 percent more helicopters are available to SOA, this can not solve the shortfall when compared to supporting more than double the number of BCT-equivalents.

Training

“Special Operations are characterized by certain attributes that cumulatively distinguish them from conventional operations.”¹⁸ A special operations team is typically a small unit that is often called upon to conduct demanding, politically sensitive missions which include strategic or operational objectives. Therefore, our nation’s special operations forces must be not only the best equipped warriors, they must be the most proficient forces in order to protect our national prestige. These units require not only specially selected personnel but require specialized equipment, training, and tactics that surpass the capabilities of conventional military units.¹⁹ The cornerstone beyond specialized equipment is specialized training and the resultant specialized tactics. In order to reach this model, special operations units develop habitual relationships to facilitate better training. These relationships allow detailed planning and coordination under demanding and challenging situations including no-notice operational contingencies. Such habitual relationships consistently and historically prove vital to small unit tactics and execution. This is especially important to note in light of discussions on optimal ratios of SOA support, since the success of Special Operations transcends the type and number of aircraft available to special mission units. Having the ability to train and develop special relationships and tactics is absolutely paramount to a successful team. Clearly, training plays prominently into the development of a plan to increase SOA capacity. In fact, most conventional Army units enjoy a co-location imperative that facilitates training together. Unfortunately, most Special Operations units are not co-located; they are stationed in numerous locations in the continental United States (CONUS) and overseas. This presents a significant training challenge to Special Operations Forces and the aviation assets that support them.

Another potential solution, albeit minor in scope and applicability, is simulations. It is reasonable to assume that simulators and their ability to improve our training will continue to increase. Simulators are a viable tool to enhance our training, specifically in scenarios that are difficult to replicate without significant safety risks. Emergency procedure training, landing under limited visibility conditions, instrument training, as well as rehearsals in simulated terrain significantly enhance our training. Special operations simulators are linked across the US. This linkage allows an AH-6 “Little Bird” to not only fly a simulated mission in Afghanistan, but also allows him to fly with a flight of MH-53 Pave Lows simulator linked in Hurlburt Field, Florida. However, simulators are very limited with respect to other tangible training requirements such as face-to-face interaction for crew chiefs to ground operators or “real” helicopter noise implications on communications. Simulators can not provide sufficient live-fire training for either a ground operator or the attack helicopter pilot. Lastly, with the multitude of other difficult and

demanding training scenarios, simulators may never supplant the real life experience of helicopter interaction training.

Courses of Action

To address the SOCOM shortfalls, a number of courses of action provide viable solutions to increase the readiness of Special Operations units. Some of these issues have already been addressed, such as the reorganization of the 160th SOAR with an initial increase in airframes, as well as the procurement of the CV-22. This expansion is a step in the right direction to increase the capability of SOCOM to fight the war on terror as well as enhance the readiness of the overall force. However, SOCOM must go further to expand and improve their rotary-wing capability. They must offer a viable, comprehensive solution that will maximize their limited resources for the future. Most important is a detailed analysis asking the question: how much force is required to conduct the mission? Upon review of the amount of force required, the courses of action to consider must be viewed through the lens of both effectiveness and efficiency. First and foremost, we must be effective in the task given and thereby ensure mission success. Second, since SOCOM is a small organization with limited resources, we owe our operators, and ultimately the nation, not only a plethora of tools, but tools that are available when required.

When considered in terms of effectiveness and efficiency, several courses of action become clear. First, SOCOM may require alternate platforms or significantly improved vertical envelopment platforms. To do this, SOCOM must continue to fund research for programs that use technology to enhance the effectiveness of helicopters and other vertical envelopment platforms. Second, SOCOM could continue to improve its unmanned aerial vehicle platforms to ultimately make more efficient use of available, manned rotary-wing lift. Third, SOCOM could approve the 160th SOAR's final FP-X requirement; the additional heavy-lift MH-47 company and the additional medium-lift MH-60 company. Lastly, SOCOM could consider an aggressive, though unpopular, restationing initiative to co-locate special operations aviation units with special operations ground forces. Most importantly, the cumulative, and perhaps synergistic, effect of these courses of action would be to effectively and efficiently fill the SOCOM rotary-wing lift shortfall.

Though a detailed analysis of each course of action is untenable in this paper, each clearly has merits for consideration. First, to achieve a lasting long-term vision, SOCOM should continue to fund research for programs that use technology to enhance the effectiveness of helicopters or other vertical envelopment platforms. Our defense industry is the world leader for

technological advances in all realms. Assuming we will continue to use helicopters or the Osprey to conduct military operations for the foreseeable future, a well thought out, comprehensive analysis of future rotary-wing improvements is paramount. Future requirements might include, naming only a few, significant engine and power train improvements, lightweight composite materials to reduce overall gross weight, alternative fuels, and noise reduction apparatus. These are only a few of the possible enhancements that are technologically challenging yet could drastically improve and augment our rotary-wing fleet's capability; a capability that significantly enhances our support to the nation's most elite special operators.

Second, the proliferation of unmanned aerial vehicles (UAV) has given us a lens through which we might view the future. These platforms have facilitated our more efficient use of tactical helicopters in many different ways. First, UAVs allow us to maintain surveillance of an objective, providing a very precise and timely ability to make prudent tactical decisions on the enemy as well as judgments about the target and that target's relevancy to other target locations, landing zones, obstacles, hazards, etc. This improves not only our ability to detect, analyze, and assess, but also to decide on the most efficient use of assets to prosecute that target or objective. Even more importantly, this capability and process also allows us to swiftly reset ourselves to prosecute even more targets faster and more effectively. The synthesis between effectiveness and efficiency here means the helicopter assault force can prosecute many more targets in less time than ever before. Therefore, SOCOM should continue to improve its unmanned aerial vehicle platforms to ultimately make more efficient use of available rotary-wing lift, thereby effectively reducing estimates for future requirements.

Next, the initial FP-X was introduced in answer to the CSL report and other feedback following OEF. The reorganization and modest, approved increase in the MH-47 fleet are a direct result of that feedback. However, due to the enduring operations in Iraq, SOCOM has failed to ultimately approve the final end strength. SOCOM needs to approve the 160th SOAR's final FP-X requirement: the additional heavy lift MH-47 company and the additional medium lift MH-60 company. This final end strength achieves a "three like battalions" structure in the 160th to support the rotational base established in both SOCOM and the Army. These cycles of "ready, available, and reset" give the Army an ability to conduct sustained operations over time. Without this ability, the 160th will maintain a high operational tempo of personnel at a rate much higher than its current greater than 1-1 dwell time.²⁰ In addition, the unit will continue to have significant problems retaining and recruiting. Currently, the unit's key personnel, such as commanders, pilots, and low-density specialists, sustain some of the highest rates of

deployment in the Army and the Department of Defense. This will necessarily have a negative impact on the unit's ability to sustain itself over time.

Finally, SOCOM should consider an aggressive, though unpopular, restationing initiative to co-locate special operations aviation units with special operations ground forces. Currently, AFSOC is located at Hurlburt Field in Florida. The Osprey's speed and endurance allow for an ability to deploy to locations swiftly and efficiently. Since the fleet is relatively small we can assume that an aggressive re-stationing is not needed or recommended. However, the 160th SOAR headquarters is located at Ft. Campbell in Kentucky. Its battalions, First Battalion and Second Battalion, are also headquartered at Ft. Campbell. The unit's Third Battalion is located at Savannah, Georgia. The 160th has begun to field its Fourth Battalion at Ft. Lewis, Washington. This antiquated stationing plan is a relic from the initial birth of the unit when it was formed as a composite unit from the 101st Airborne Division; also headquartered at Ft. Campbell, Kentucky. A more effective and efficient re-stationing program would station supporting SOA battalions in better positions to support their ground forces. For example, First Battalion supports numerous battalion-level units located at Ft. Benning, Georgia, Ft. Stewart, Georgia, Ft. Bragg, North Carolina, as well as Damneck, Virginia. In all, eight of the nine battalion-sized units First Battalion supports are east of the Appalachians. A more suitable, centralized location, such as Ft. Bragg, North Carolina would facilitate not only co-location, and its associated training benefits, but would also enhance the unit's ability to self-deploy to the other units within a few hours flight time. This would significantly reduce the current demands on the Air Force strategic lift on which the battalion currently relies for training events, while additionally eliminating the cross-country self-deployments routinely conducted to these training locations. Another re-stationing possibility would be to move Third Battalion to Ft. Bragg, North Carolina where Third Special Forces Group (SFG) and Seventh SFG currently reside.

Impact of Courses of Action on the Army and Army Aviation

Any of the above courses of action or solution has impacts and associated costs, as well as second and third order effects. However, doing only a little to meet the documented demand is akin to negating or ignoring the GWOT experience of numerous past operators who have endured thus far under grueling conditions. First, SOCOM must continue research and development within its own Title 10 mandate²¹ in stride with the Army's research and development programs. Both SOCOM and the Army stand to gain with well coordinated programs where both can leverage like requirements and capabilities. This is a positive step for all involved.

The impact from a more robust UAV capability includes cost, manpower, and airspace coordination. Most obvious, the impact on cost is directly proportional to the additional systems required and fielded as well as the long-term costs associated with a larger fleet. The impacts on manpower are minimal since the UAV manpower requirement is relatively small. However, it is noted that these increases will stake a claim on SOCOM's human resource provider, the service components, that must be considered and addressed. Currently, SOCOM primarily uses Air Force UAVs, therefore the cost in manpower for UAVs would presumably come from the Air Force. The impact on a JSOTF headquarters to coordinate and deconflict airspace is a notable, though manageable, challenge. In any case, the overall costs associated with any increase in UAVs would either be paid by the Service Components or would require Congressional approval for not only an increased budget but also an increase in end strength.

The third potential course of action calls for approving the 160th SOAR's initial FP-X document. The impact on this course of action is significant across the board in both cost and manning. First, the impact on the budget and future budget is an expensive proposition. The cost of the additional MH-47s and MH-60s would approach \$1 billion. This would include the spare parts and additional tools required to maintain this increase, but wouldn't include the flight hour requirements or future linked costs. Additional hangar or administrative space is not a significant impact since most of the overhead and infrastructure for the battalions is already in place at the proposed relocation site. Manpower would be the next most significant issue. The impact of these courses of action on the Army, and more specifically Army Aviation, is important to note. Any increase in helicopters requires a "bill payer" from within the overall Army end strength. If army aviation is unable to convince the Army to fill this increase in manning requirements from within, then ultimately the Army would need to persuade Congress for an increase in overall end strength. The cost for this increase is significant, but the corresponding benefits are likely equally significant.

The prospect of restationing units is significant from two respects. First, the cost for building headquarters and hangars infrastructure, if not already pre-existent, can be significant. However, the costs can be justified by savings achieved through a decrease in rotary-wing flight hours achieved by eliminating self-deployments. The potential to reduce flight hour demands could also be regenerated into ground force training flight hours. This would significantly increase support to the ground force commander, who ultimately does not get enough training support in the first place. It would also serve to enhance the proficiency of the overall force, both aviation and ground. More time spent training together should be the ultimate goal. Second, the decrease in demand on Air Force transport to move numerous helicopters to

Oceana Naval Air Station, Virginia to support the SEALs or to Ft. Bragg, North Carolina to support the Special Forces units is another potential cost savings that results from repositioning. While the restationing course of action is one of the most promising, its most prominent negative aspect is its impact on families. Repositioning units would require a significant move for families who are located at their current home stations, such as Ft. Campbell, Kentucky or Savannah, Georgia. Since special operations aviators are unique in the Army, they are the only ones of their kind; therefore the Army would not have the option of building the unit from a conglomerate of other “already” relocating units. Ultimately, this would cause significant turbulence within the units who would be required to move to a new post. This would ultimately pose a significant cost to the families. Finally, the most significant impediment to overcome may be congress. As proven in the Base Realignment and Closure (BRAC) process, the implications of relocating major, high-priority SOF units from one congressional district to another would involve a noteworthy effort.

Recommendations

First, SOCOM should strive to continue to fund research for programs that use technology to enhance the effectiveness of helicopters and other vertical envelopment platforms. We must assume that we will continue to use SOA helicopters and the CV-22 to conduct military operations for the foreseeable future. This capability notably boosts our support to the nation’s most elite special operators. Next, SOCOM should pursue an aggressive and robust UAV program. Third, SOCOM should approve and aggressively pursue the total 160th SOAR FP-X document. The FP-X document provides a balanced and complete approach to providing the appropriate force levels to SOCOM for a strategic advantage in the GWOT. Lastly, and most importantly, SOCOM should consider a restationing initiative in order to co-locate special operations aviation units with special operations ground forces. Failing the emergence of some other course of action, the restationing initiative provides the most sensible alternative to ensuring our special operations forces have timely and readily available training assets.

One must conclude that the ARSOA shortfall in SOCOM must be addressed, and sooner rather than later. Though SOCOM sought to resolve this shortfall in Special Operations Aviation (SOA) following initial operations in Afghanistan, the solutions did not provide a comprehensive answer to a broader spectrum of operational issues. Special Operations forces were not only constrained by a limited number of SOA airframes available to conduct operations and training, but by the limitations of the aircraft in certain operational environments as well as component commands. In light of these deficiencies in its rotary-wing capability, the Special Operations

Community was compelled to examine courses of action to augment and improve its capabilities for future operations. The 160th attempted to address this shortfall with an addition of *some* heavy-lift capability as well as minor reorganization. Since then, however, operations in Iraq, simultaneously with operations in Afghanistan, have increased exponentially while leaving us a widening deficit in capability to support other world-wide contingencies. Though the V-22 Osprey is due to be fielded by 2009 under AFSOC, this capability does not bridge the tactical capability gap across the spectrum of demand. The QDR report recommends growth of approximately thirty percent across the Special Operations community. The growth sought in the QDR, coupled with the recent addition of Marines to SOCOM, will serve to further intensify the deficit of SOA rotary-wing lift. Special Operations Command must aggressively address and redress this shortfall to ensure future operational capability to enhance its leading role in the Global War on Terror.

Endnotes

¹ COL Eugene L. Thompson and Dr. Conrad C. Crane, "The U.S. Army's Initial Impressions of Operations Enduring Freedom and Noble Eagle," *Center for Strategic Leadership*, Issues Paper 10-02 (October 2002): 2-3.

² Department of Defense, *Quadrennial Defense Review Report* (Washington, D.C.: Department of Defense, February 2006), 43-44.

³ Information is derived from the Joint Special Operations University, *Special Operations Forces Reference Manual*, (Hurlburt Field, Florida: The JSOU Press, June 2005, Revised July 2006), 1-1. The Special Operations Forces Reference Manual is categorized as For Official Use Only (FOUO) and can be found in the office of the Director, Special Forces, in the Department of Military Strategy, Planning, and Operations at the US Army War College.

⁴ Information is derived from the Joint Special Operations University United States Special Operations Command, *Capstone Concept for Special Operations*, (MacDill Air Force Base, Florida: Futures Directorate, Center for Knowledge & Futures, United States Special Operations Command, 2006), 2. This document can be found in the office of the Director, Special Forces, in the Department of Military Strategy, Planning, and Operations at the US Army War College.

⁵ Joint Special Operations University, *Special Operations Forces Reference Manual*, Chapter 3, 18-31, Chapter 5, 7-8.

⁶ *Hurlburt Field Home Page*, available from <http://www2.hurlburt.af.mil>; Internet; accessed 28 November 2006. Also available from the SOF Reference Manual, <http://www.fas.org>; Internet; accessed 2 December 2006.

⁷ SOF Reference Manual, <http://www.fas.org>; Internet; accessed 2 December 2006.

⁸ Department of Defense, *Quadrennial Defense Review Report*, 43-44.

⁹ *Ibid.*, 44-45.

¹⁰ MAJ Nicholas A. Morris, email message to author, based on Sixteenth SOW briefing slides, 27 November 2006. This information is not still in consideration for final decision and may change.

¹¹ Currently, two Companies in the 160th are assigned to a geographic combatant commander (GCC). Therefore, combatant commander includes that unit in planning for contingency operations and operational plans, therefore exacerbating the impact on its plans if attached to another AOR. This is especially true with SOA helicopters. Once imbedded in a GCCs contingency planning, SOCOM has no ability to re-assign those assets to higher priority missions, specifically to another theater, without approval from the Secretary of Defense.

¹² Information is derived from the 160th SOAR "Force Design Update 03-1 Change 2 (FP-X Organization Design Paper)" Dated 15 October 2004, 1. This document may be requested from the 160th SOAR Operations Officer.

¹³ Information herein is based on the author's experience during two years command in the unit, and briefings given to numerous leaders on the difficulties of the Deployment Tempo (DEPTempo) for key personnel. It should be noted that the DEPTempo and its impact on retention was significant enough for SOCOM to authorize an Aviation Career Incentive Pay (ACIP) bonus to ensure retention of Warrant Officers with more than six years of service but less than 24 years of service. This bonus went into affect in October 2005.

¹⁴ 160th SOAR Force Design Update, 5-7.

¹⁵ *The United States Army Homepage*, Army Modular Force Briefing; available from the internet <http://www.army.mil>; Internet accessed 17 November 2006.

¹⁶ *Acquisition Community Connection Home Page*, Army Aviation Modernization Brief available from <https://acc.dau.mil>; Internet accessed 19 November 2006.

¹⁷ Joint Special Operations University, *Special Operations Forces Reference Manual*, Chapter 3, 18-31, Chapter 5, 7-8.

¹⁸ United States Army War College, *Service Employment Courseware AY07: Special Operations Forces Reference Manual*, Department of Military Strategy, Planning, and Operations. Chapter 1, Introduction to Special Operations.

¹⁹ *Ibid.*

²⁰ Dwell Time is defined as the time a soldier spends at home station between combat deployments, operational deployments (non-combat), or dependent restricted tours. Capturing deployment data is critical for determining the stress on the force and providing stability and predictability. *The US Army Human Resources Command Homepage*, available from the internet <https://www.hrc.army.mil/site/protect/Active/opmd>; internet accessed 31 January 2007.

²¹ According to Title 10, Subtitle A, Part 1, Chapter 6, US SOCOM is designated as a Unified Combatant Command for special operations forces. This establishes both command of activity or mission as well as authority of Combatant Commander. This is unique in that it establishes SOCOM as the only combatant command responsible for both mission accomplishment, commensurate with the geographic combatant commanders, as well as “train and equip” responsibilities commensurate with the component services responsibilities. *Cornell School of Law Homepage*, available from the internet <http://www4.law.cornell.edu/uscode/html>; internet accessed 15 January 2007.



DEPARTMENT OF THE ARMY
UNITED STATES ARMY WAR COLLEGE AND CARLISLE BARRACKS
CARLISLE, PENNSYLVANIA 170135050

February 20, 2008

REPLY TO
ATTENTION OF

ATWC-AA

Defense Technical Information Center
ATTN: Mr. Laurence Ramserran
8725 John J. Kingman Road
Fort Belvoir, Virginia 22060-6218

Dear Mr. Ramserran:

The Strategy Research Project by COL Stephen M. Schiller has been approved for change from Distribution B (Distribution authorized to U.S. Government Agencies only.) to Distribution A (Approved for public Release Distribution is Unlimited.). The research project, dated 30 March 2007, is titled: *A Strategy to Redress Special Operations Aviation Rotary-Wing Shortfalls*. A review of the document established that the information contained within the document is appropriate for general and public distribution. The change in distribution status has been made here and we request that the change also be entered in the DTIC records.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry D. Miller", is positioned above the typed name.

Larry D. Miller, Ph.D.
Professor & Director,
Communicative Arts
United States Army War College
Carlisle Barracks, PA 17013-5220
717-245-3358